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EXAMINER

AKLILU, KIRUBEL

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,683

Applicant(s)

DANIELS, JOHN J.

Examiner

Kirubel Aklilu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 17 is objected to because of the following informalities: the claim is incomplete. The examiner could only understand and examine the claimed limitation up to "the control signal generating means comprises means for generating remote control signals effective for controlling at least one remotely located devices." Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allport (U.S. Patent # 6,104,334) in view of Margulis (U.S. Patent # 6,263,503).

1.) As for **Claim 1**, Allport teach a wireless display terminal system for use with a multimedia network having a wireless transceiver node for receiving and transmitting control signals (see col. 4 lines 28-30 "The present invention relates to a remote control dedicated to the control of various consumer devices made by various manufacturers,

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and to methods of its use.” And col. 5 lines 50-65 “One of the most powerful aspects of the remote control of the present invention is its ability to interact with and gather data from the internet or other data sources such as a PC, and make use of a wide variety of data thus obtained. Specifically, the remote control is capable not only of downloading device configuration information (i.e., IR command libraries) from the internet as existing universal remotes are, but is capable also of receiving other internet data that can be used in interacting with the controlled devices.”);

the display terminal device characterized by:

a housing member (see Allport fig. 2 unit 10 remote control housing member);

a display screen held by the housing (see Allport fig. 2 unit 85 display. Also see col. 10 lines 50-58 “The physical display area 85 that allows the screens to be presented to the consumer is part of the remote control 10 itself. The display is preferably an LCD and is 320 pixels by 240 pixels (1/4 VGA).”);

computer control signal generating means for generating computer control signals for controlling a remotely located computer (see Allport fig. 18 schematics of the hardware of the remote control unit, and col. 27 lines 9-44 “Memory 610 is a boot ROM for holding the system software, which includes the system control component and may include some or all of the application interface component, though the application interface component is preferably stored in the flash ROM 625.” The memory that holds the system software which includes the system control component is interpreted to be a computer control signal generating means for generating computer control signals for controlling a remotely located computer, when the remote control is used control a web

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browser on a PC-TV (see Allport col. 9 lines 63-65 "Devices controlled from the "other" screen 40 may include kitchen appliances, **a web browser on an advanced TV,**") An advanced TV with a web browser (commonly know in the Art as "PC-TV") is interpreted to be a computer);

a display driver for driving the display screen in response to a display signal generated by the remotely located computer (see Allport fig. 18 unit 695 LCD Controller, col. 28 lines 4-5 "The LCD controller 695 controls what is displayed on the LCD display 665" When program schedule is downloaded from the Internet and displayed on the display screen of the remote control (see Allport col. 5 lines 50-63 "One of the most powerful aspects of the remote control of the present invention is its ability to interact with and gather data from the internet or other data sources such as a PC, and make use of a wide variety of data thus obtained . . . For example, title-based descriptions such as TV schedules can be downloaded into the memory of the remote control, and then listed and browsed on the display of the remote control,"), the LCD controller 695 is interpreted to be the display driver for driving the display screen in response to a display signal generated by the remotely located computer. The remotely computer is interpreted to be the server computer that hosts the program schedule information that is requested by the remote control); and

a terminal side wireless transceiver disposed within the housing member for transmitting the computer control signals to the remotely located computer as a wireless signal and for receiving the display signal generated by the remotely located computer as a wireless signal (see Allport fig. 18 unit 645 IrDA, col. 28 lines 51-65 "the remote

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control 10 may connect to the internet or other data source directly or by a home PC.

The connection may be through wired communications or by wireless . . . Wireless

communications may be through the use of **IrDA protocols** or other wireless links (e.g.,

RF with the use of additional hardware) to a PC or the phone lines . . . the remote

control 10 will either have a standard telephone connection point with an **internal**

modem, or else **hardware and software enabling wireless communication** with a

standard domestic wireless phone base, such that a telephone connection could be

made between the remote control 10 and the internet.” The IrDA protocols, an internal

modem, or the hardware and software enabling wireless communication are all

transceivers disposed within the housing member for transmitting and receiving control

signals with a remotely located computer, wirelessly).

Allport does not expressly teach said wireless transceiver node for receiving and

transmitting video data to wireless devices. However, in the same field of endeavor,

Margulis teaches a method for implementing a wireless television system wherein a

remote controller receives broadcast video signals wirelessly (see Margulis col. 6 lines

13-26 “remote controller screen 314 may thereby allow system users to preview various

different selectable program sources 112 while simultaneously viewing an uninterrupted

primary program source 112 on primary TV 152 or on remote TV 158. In the foregoing

preview function, remote controller screen may receive a wireless transmission

originating from a separate picture-in-picture (PIP) tuner in wireless television system

110. The preview function may therefore be utilized for functions like programming

VCR 126 or previewing other channels without interrupting other concurrent program

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viewing activities.”). In light of the teaching of Margulis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Allport to have the remote control receive video broadcast so a viewer can preview a program without interrupting a program being shown on a primary television.

Neither Allport, not Margulis teach said wireless display terminal transmit video data to wireless devices. However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of transmitting video signals to wireless devices are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify Allport and Margulis to have the wireless display terminal transmit video data to other wireless devices. One of ordinary skill in the art at the time the invention was made would have been motivated to do this to download a video data from the Internet, such as supplemental data, or preview of upcoming shows, and transmit this data wirelessly to a television with a bigger display screen in order to view the video on a bigger television screen.

2. As for **Claim 2**, the modified Allport and Margulis teaches the signal generated by the remotely located computer comprises computer display video data (see Margulis col. 6 lines 13-26 “remote controller screen 314 may thereby allow system users to preview various different selectable program sources 112 while simultaneously viewing an uninterrupted primary program source 112 on primary TV 152 or on remote TV 158. In the foregoing preview function, remote controller screen may receive a wireless transmission originating from a separate picture-in-picture (PIP) tuner in wireless

television system 110. The preview function may therefore be utilized for functions like programming VCR 126 or previewing other channels without interrupting other concurrent program viewing activities."); and

further including graphic generating means for generating a graphical display receptive by the display driver for displaying graphical information in accordance with control signals transmitted by the computer (see Allport fig. 18 unit 695 LCD Controller, col. 28 lines 4-5 "The LCD controller 695 controls what is displayed on the LCD display 665" The LCD controller 695 is interpreted to be a graphic generating means for generating a graphical display receptive by the display driver for displaying graphical information in accordance with control signals transmitted by the computer).

3. As for **Claim 3**, Allport teaches a touch sensitive input device for receiving user input for controlling the generating of the computer control signals (see col. 10 lines 64-67 "Various physical actuating buttons, such as sliders, push buttons, switches, **touch-sensitive pads**, levers, toggles, dials, knobs, pull buttons, a mouse, etc., are present on the remote control 10." The touch sensitive pads are input devices for receiving user input for controlling the generation of the computer control signals).

4. As for **Claim 4**, Allport teaches the touch sensitive input device comprises a touch screen disposed adjacent to the display screen, and a pressure sensitive keyboard. See col. 10 lines 64-67 "Various physical actuating buttons, such as sliders, **push buttons**,

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switches, **touch-sensitive pads**, levers, toggles, dials, knobs, pull buttons, a mouse, etc., are present on the remote control 10.”

5. As for **Claim 5**, Allport teaches the terminal side wireless transceiver comprises one transmitter and one receiver selected comprised of an infrared transmitter, an infrared receiver. See col. 28 lines 23-26 “the remote control 10 has hardware for generating IR commands suitable for controlling consumer devices, and may also have hardware for receiving IR communications (e.g., through IrDA port 645).”

6. As for **Claim 6**, Allport teaches a wireless transceiver node connected to a hard wired network having a connection to the remotely located computer (see col. 28 lines 57-59 “Wireless communications may be through the use of IrDA protocols or other wireless links (e.g., RF with the use of additional hardware) to a PC or the phone lines.”

Unit 645 IrDA port of Fig. 18 is interpreted to be the wireless transceiver node connected to a phone line, which is interpreted to be a hard-wired network having a connection to the remotely located computer because the phone lines can be used to access a remotely located computer over the internet),

the wireless transceiver node including a computer control signal receiver for receiving the wireless signal including the computer control signals from the terminal side wireless transceiver (see col. 28 lines 23-26 “the remote control 10 has hardware for generating IR commands suitable for controlling consumer devices, and may also have hardware for receiving IR communications (e.g., through IrDA port 645).” IrDA

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port 645 is interpreted to be the wireless transceiver node that receives wireless IR computer control signals from a remote device. When the IrDA port receives internal instruction from the UART 675 instructing the IrDA port to transmit control signals to remote devices, it is interpreted that the transceiver node is receiving computer control signals from the terminal side wireless transceiver. See col. 27 lines 40-44 "The UART 675 is used to transmit data through port 640 which is a control IR port, and to transmit and receive data through ports 645, 650, and 655. Control IR port 640 or its equivalent is essential because the data sent through control IR port 640 are the IR commands to control devices."); and

a display signal transmitter for transmitting the display signal generated by the remotely located computer to the terminal side wireless transceiver (see col. 5 lines 50-63 "One of the most powerful aspects of the remote control of the present invention is its ability to interact with and gather data from the internet or other data sources such as a PC, and make use of a wide variety of data thus obtained . . . For example, title-based descriptions such as TV schedules can be downloaded into the memory of the remote control, and then listed and browsed on the display of the remote control,"), the LCD controller 695 is interpreted to be the display driver for driving the display screen in response to a display signal generated by the remotely located computer. The remotely computer is interpreted to be the server computer that hosts the program schedule information that is requested by the remote control and **this remote computer inherently has a display signal transmitter that transmits the display signal that is transmitted to the terminal side wireless transceiver.**).

7. As for **Claim 7**, the modified Allport and Margulis teaches a video input device for generating at least one of a display side wireless transceiver includes means for transmitting the at least one video signal and audio signal to the wireless transceiver node as a wireless signal. See Margulis Fig. 1 unit 156 Wireless Base Station, col. 5 lines 5-22 "wireless base station 156 may readily be implemented as part of a set-top box (not shown) or any other component in system 110 . . . wireless base station 156 then advantageously processes the received program source(s) 112, and wirelessly transmits the processed program source(s) 112 as a broadcast stream to remote TV 158 for flexible remote viewing by a system user." Wireless Base Station is interpreted to be a video input device for generating at least one of a display side wireless transceiver includes means for transmitting the at least one video signal and audio signal to the wireless transceiver node as a wireless signal.

8. As for **Claim 8**, Allport teach a wireless transceiver node connected to the computer (see col. 28 lines 57-59 "Wireless communications may be through the use of IrDA protocols or other wireless links (e.g., RF with the use of additional hardware) to a PC or the phone lines." Unit 645 IrDA port of Fig. 18 is interpreted to be the wireless transceiver node connected to a PC),

the wireless transceiver node including a computer control signal receiver for receiving the wireless signal including the computer control signals from the terminal side wireless transceiver (see col. 28 lines 23-26 "the remote control 10 has hardware

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for generating IR commands suitable for controlling consumer devices, and may also have hardware for receiving IR communications (e.g., through IrDA port 645)." IrDA port 645 is interpreted to be the wireless transceiver node that receives wireless IR computer control signals from a remote device. When the IrDA port receives internal instruction from the UART 675 instructing the IrDA port to transmit control signals to remote devices, it is interpreted that the transceiver node is receiving computer control signals from the terminal side wireless transceiver. See col. 27 lines 40-44 "The UART 675 is used to transmit data through port 640 which is a control IR port, and to transmit and receive data through ports 645, 650, and 655. Control IR port 640 or its equivalent is essential because the data sent through control IR port 640 are the IR commands to control devices."); and

a display signal transmitter for transmitting the display signal generated by the remotely located computer to the terminal side wireless transceiver (see col. 5 lines 50-63 "One of the most powerful aspects of the remote control of the present invention is its ability to interact with and gather data from the internet or other data sources such as a PC, and make use of a wide variety of data thus obtained . . . For example, title-based descriptions such as TV schedules can be downloaded into the memory of the remote control, and then listed and browsed on the display of the remote control,"), the LCD controller 695 is interpreted to be the display driver for driving the display screen in response to a display signal generated by the remotely located computer. The remotely computer is interpreted to be the server computer that hosts the program schedule information that is requested by the remote control and **this remote computer**

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inherently has a display signal transmitter that transmits the display signal that is transmitted to the terminal side wireless transceiver.).

9.) As for **Claim 9**, the modified Allport and Margulis teach a video input device for generating at least one of a video signal and an audio signal (See Margulis Fig. 1 unit 156 Wireless Base Station, col. 5 lines 5-22 "wireless base station 156 may readily be implemented as part of a set-top box (not shown) or any other component in system 110 . . . wireless base station 156 then advantageously processes the received program source(s) 112, and wirelessly transmits the processed program source(s) 112 as a broadcast stream to remote TV 158 for flexible remote viewing by a system user." Wireless Base Station is interpreted to be a video input device for generating at least one video signal and audio signal); and

wherein the terminal display side wireless transceiver includes means for transmitting the at least one video signal and audio signal to the wireless transceiver node as a wireless signal (When the remote control of the modified Allport and Margulis receives video and audio programs from the internet and transmits the signals wirelessly to a remote television screen with a larger display area, as per the Office Notice stated in Claim 1, it is interpreted that terminal display side wireless transceiver includes means for transmitting the at least one video signal and audio signal to the wireless transceiver node as a wireless signal).

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10. As for **Claim 10**, Allport teaches device remote control signal generating means for generating remote control signals effective for controlling appliances receptive of such control signals (see col. 28 lines 23-26 "the remote control 10 has hardware for generating IR commands suitable for controlling consumer devices, and may also have hardware for receiving IR communications (e.g., through IrDA port 645)." IrDA port 645 is interpreted to be the wireless transceiver node that receives wireless IR computer control signals from a remote device. When the IrDA port receives internal instruction from the UART 675 instructing the IrDA port to transmit control signals to remote devices, it is interpreted that the transceiver node is receiving computer control signals from the terminal side wireless transceiver. See col. 27 lines 40-44 "The UART 675 is used to transmit data through port 640 which is a control IR port, and to transmit and receive data through ports 645, 650, and 655. Control IR port 640 or its equivalent is essential because the data sent through control IR port 640 are the IR commands to control devices.").

11. As for **Claim 11**, Allport teaches a wireless display terminal system comprising:

- a housing member (see Allport fig. 2 unit 10 remote control housing member);
- a display screen held by the housing (see Allport fig. 2 unit 85 display. Also see col. 10 lines 50-58 "The physical display area 85 that allows the screens to be presented to the consumer is part of the remote control 10 itself. The display is preferably an LCD and is 320 pixels by 240 pixels (1/4 VGA).");

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control signal generating means for generating control signals for controlling at least one remotely located data source (see Allport fig. 18 schematics of the hardware of the remote control unit, and col. 27 lines 9-44 "Memory 610 is a boot ROM for holding the system software, which includes the system control component and may include some or all of the application interface component, though the application interface component is preferably stored in the flash ROM 625." The memory that holds the system software which includes the system control component is interpreted to be a computer control signal generating means for generating computer control signals for controlling a remotely located computer, when the remote control is used control a web browser on a PC-TV (see Allport col. 9 lines 63-65 "Devices controlled from the "other" screen 40 may include kitchen appliances, **a web browser on an advanced TV,**") An advanced TV with a web browser (commonly know in the Art as "PC-TV") is interpreted to be a remotely located data source);

a first wireless data signal receiving means for receiving a first wireless data signal (see Allport col. 28 lines 57-59 "Wireless communications may be through the use of **IrDA protocols** or other wireless links (e.g., RF with the use of additional hardware) to a PC or the phone lines." The IrDA protocols are interpreted to be a first wireless data signal receiving means);

a second wireless signal receiving means for receiving a second wireless data signal (see Allport col. 28 lines 57-59 "Wireless communications may be through the use of IrDA protocols or other wireless links (e.g., **RF with the use of additional**

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hardware) to a PC or the phone lines." The RF wireless protocols are interpreted to be a second wireless data signal receiving means);

display driving means for receiving the composed video signal and outputting a display driving signal (see Allport fig. 18 unit 695 LCD Controller, col. 28 lines 4-5 "The LCD controller 695 controls what is displayed on the LCD display 665"); and

a display for receiving the display driving signal and displaying the screen image (see Allport fig. 2 unit 85 display. Also see col. 10 lines 50-58 "The physical display area 85 that allows the screens to be presented to the consumer is part of the remote control 10 itself. The display is preferably an LCD and is 320 pixels by 240 pixels (1/4 VGA).").

Allport does not expressly teach a split screen picture-in-picture display comprised of video information. However, in the same field of endeavor, Margulis teaches on col. 6 lines 21-24 "In the foregoing preview function, remote controller screen may receive a wireless transmission originating from a separate **picture-in-picture (PIP) tuner in wireless television system 110.**" In light of the teaching of Margulis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Allport to have the remote control display a picture-in-picture split screen. One of ordinary skill in the art at the time the invention was made would have been motivated to do this in order to display two different programming simultaneously to a user. However, neither Allport nor Margulis expressly teach a video processing means for processing video information contained in the first and the second wireless data signal, the video processing means being effective for outputting a

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composed video signal containing a screen image composed of a split screen or picture-in-a-picture display comprised of the video information; However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of video processing means to process separate video signals for display in a picture-in-picture screen are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify Allport and Margulis by having a video processing means for processing video information contained in the first and the second wireless data signal, the video processing means being effective for outputting a composed video signal containing a screen image composed of a split screen or picture-in-a-picture display comprised of the video information. One of ordinary skill in the art would have been motivated to do this in order to give the user of the wireless display terminal access to supplemental information, such as program listings downloaded from the internet, while simultaneously being presented with regular television programming.

12. As for **Claim 12**, Allport teaches a touch sensitive input device for receiving user input for controlling the generating of the computer control signals. See col. 10 lines 64-67 "Various physical actuating buttons, such as sliders, push buttons, switches, **touch-sensitive pads**, levers, toggles, dials, knobs, pull buttons, a mouse, etc., are present on the remote control 10." The touch sensitive pads are input devices for receiving user input for controlling the generation of the computer control signals

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13. As for **Claim 13**, Allport teaches a wireless transceiver node connected to a hard-wired network in communication with a remotely located computer. See col. 28 lines 57-59 "Wireless communications may be through the use of IrDA protocols or other wireless links (e.g., RF with the use of additional hardware) to a PC or the phone lines." Unit 645 IrDA port of Fig. 18 is interpreted to be the wireless transceiver node connected to a phone line, which is interpreted to be a hard-wired network having a connection to the remotely located computer because the phone lines can be used to access a remotely located computer over the Internet.

14. As for **Claim 14**, the modified Allport and Margulis teaches a video input device for generating at least one of a video signal and an audio signal (See Margulis Fig. 1 unit 156 Wireless Base Station, col. 5 lines 5-22 "wireless base station 156 may readily be implemented as part of a set-top box (not shown) or any other component in system 110 . . . wireless base station 156 then advantageously processes the received program source(s) 112, and wirelessly transmits the processed program source(s) 112 as a broadcast stream to remote TV 158 for flexible remote viewing by a system user." Wireless Base Station is interpreted to be a video input device for generating at least one video signal and audio signal); and

means for transmitting the at least one video signal and audio signal as a wireless signal (When the remote control of the modified Allport and Margulis receives video and audio programs from the internet and transmits the signals wirelessly to a remote television screen with a larger display area, as per the Office Notice stated in

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Claim 1, it is interpreted that terminal display side wireless transceiver includes means for transmitting the at least one video signal and audio signal to the wireless transceiver node as a wireless signal).

15. As for **Claim 15**, Allport teaches remote control signal generating means for generating remote control signals effective for controlling computers and appliances receptive of such control signals. See col. 28 lines 23-26 "the remote control 10 has hardware for generating IR commands suitable for controlling consumer devices, and may also have hardware for receiving IR communications (e.g., through IrDA port 645)." IrDA port 645 is interpreted to be the wireless transceiver node that receives wireless IR computer control signals from a remote device. When the IrDA port receives internal instruction from the UART 675 instructing the IrDA port to transmit control signals to remote devices, it is interpreted that the transceiver node is receiving computer control signals from the terminal side wireless transceiver. See col. 27 lines 40-44 "The UART 675 is used to transmit data through port 640 which is a control IR port, and to transmit and receive data through ports 645, 650, and 655. Control IR port 640 or its equivalent is essential because the data sent through control IR port 640 are the IR commands to control devices."

16.) As for **Claim 16**, Allport teaches a display device comprising:

a display screen held by the housing (see Allport fig. 2 unit 85 display. Also see col. 10 lines 50-58 "The physical display area 85 that allows the screens to be

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presented to the consumer is part of the remote control 10 itself. The display is preferably an LCD and is 320 pixels by 240 pixels (1/4 VGA).");

control signal generating means for generating control signals for controlling at least one remotely located data signal source (see Allport fig. 18 schematics of the hardware of the remote control unit, and col. 27 lines 9-44 "Memory 610 is a boot ROM for holding the system software, which includes the system control component and may include some or all of the application interface component, though the application interface component is preferably stored in the flash ROM 625." The memory that holds the system software which includes the system control component is interpreted to be a computer control signal generating means for generating computer control signals for controlling a remotely located computer, when the remote control is used control a web browser on a PC-TV (see Allport col. 9 lines 63-65 "Devices controlled from the "other" screen 40 may include kitchen appliances, **a web browser on an advanced TV,**") An advanced TV with a web browser (commonly know in the Art as "PC-TV") is interpreted to be a remotely located data source);

wireless digital data signal receiving means for receiving a wireless data signal, the wireless data signal being comprised of digitally transmitted data (see Allport col. 5 lines 50-65 "One of the most powerful aspects of the remote control of the present invention is its ability to interact with and gather data from the internet or other data sources such as a PC, and make use of a wide variety of data thus obtained. Specifically, the remote control is capable not only of downloading device configuration information (i.e., IR command libraries) from the internet as existing universal remotes

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are, but is capable also of receiving other internet data that can be used in interacting with the controlled devices.”);

Allport does not expressly teach wireless analog video signal receiving means for receiving a wireless video signal, the wireless video signal being comprised of analog transmitted data; However, in the same field of endeavor, Margulis teaches a method for implementing a wireless television system wherein a remote controller receives broadcast video signals wirelessly (see Margulis col. 6 lines 13-26 “remote controller screen 314 may thereby allow system users to preview various different selectable program sources 112 while simultaneously viewing an uninterrupted primary program source 112 on primary TV 152 or on remote TV 158. In the foregoing preview function, remote controller screen may receive a wireless transmission originating from a separate picture-in-picture (PIP) tuner in wireless television system 110. The preview function may therefore be utilized for functions like programming VCR 126 or previewing other channels without interrupting other concurrent program viewing activities.” Also see Margulis col. 2 lines 22-45 “if the program source includes analog video, then, the wireless base station preferably formats the analog video into an appropriate format, and provides the formatted video to the subsystem processor . . . the subsystem processor preferably combines the processed audio, video, and data into a processed stream. A communications processor then receives the processed stream, and responsively performs a wireless network processing procedure to generate a transmitter-ready stream. Finally, a transmitter device receives and modulates the transmitter-ready stream, and advantageously performs a wireless network

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transmission process to propagate a broadcast stream to a remote TV, a remote controller, an auxiliary base station, or any other compatible display receiver device, in accordance with the present invention.”). In light of the teaching of Margulis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Allport to have the remote control receive analog video broadcast so a viewer can preview a program without interrupting a program being shown on a primary television.

video processing means for processing the received wireless data signal and the received wireless video signal, the video processing means being effective for outputting a composed video signal containing a screen image composed of a split screen or picture-in-a-picture display comprised of the digitally transmitted data displayed in a first portion of the display screen and the analog transmitted data displayed simultaneously in a second portion of the display screen. Margulis teaches on col. 6 lines 21-24 “In the foregoing preview function, remote controller screen may receive a wireless transmission originating from a separate **picture-in-picture (PIP) tuner in wireless television system 110.**” However, neither Allport nor Margulis expressly teach a video processing means for processing video information contained in the first and the second wireless data signal, the video processing means being effective for outputting a composed video signal containing a screen image composed of a split screen or picture-in-a-picture display comprised of the video information; However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of video processing means to process separate video signals for display in

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a picture-in-picture screen are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the teaching of Allport and Margulis to have a video processing means for processing video information contained in the first and the second wireless data signal, the video processing means being effective for outputting a composed video signal containing a screen image composed of a split screen or picture-in-a-picture display comprised of the video information. One of ordinary skill in the art would have been motivated to do this in order to give the user of the wireless display terminal access to supplemental information, such as program listings downloaded from the internet, while simultaneously being presented with regular television programming. In the event the preview program is transmitted in analog format, and the program schedule information downloaded from the Internet is inherently digital, the picture-in-picture screen will display the first portion analog signal and second portion digital signal, or vice versa, on the split television screen.

17. As for **Claim 17**, Allport teaches the control signal generating means comprises means for generating remote control signals effective for controlling at least one remotely located devices. See Allport fig. 18 schematics of the hardware of the remote control unit, and col. 27 lines 18-22 "Memory 610 is a boot ROM for holding the system software, which includes the system control component and may include some or all of the application interface component, though the application interface component is preferably stored in the flash ROM 625." The memory that holds the system software

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which includes the system control component is interpreted to be a computer control signal generating means for generating computer control signals for controlling a remotely located computer

18.) As for **Claim 18**, the modified Allport and Margulis teaches the wireless digital data comprises Internet content and the wireless analog data comprises television content, whereby a digitally transmitted Internet page is simultaneously displayed along with an analog transmitted television program. Please refer to rejection of Claim 16. In the split screen mode, the television program that is downloaded from the internet is displayed along an analog television program.

19. As for **Claim 19**, Allport teach a local storage device contained within the housing. See Allport col. 27 lines 18-22 "Memory 610 is a boot ROM for holding the system software, which includes the system control component and may include some or all of the application interface component, though the application interface component is preferably stored in the flash ROM 625."

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allport (U.S. Patent # 6,104,334) in view of Margulis (U.S. Patent # 6,263,503) in further view of Elkind (U.S. Patent # 6,119,258)

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20. As for **Claim 20**, Allport and Margulis do not expressly teach a frame buffer for preventing the disruption of a received video signal,

However, in the same field of endeavor, Elkind teaches a video error/distortion checker to catch error in video signals. See col. 1 lines 56-59 "Accordingly the present invention provides a video error/distortion checker for verifying proper operation of digital equipment used with either PAL composite signals, data compressed signals, or non-lossless processed signals." Although Elkind teaches detecting means for detecting poor video signal quality, Elkind does not expressly teach retrieving means for retrieving a stored received frame of good video data in response to the detected poor video signal quality, whereby the retrieved frame of good video data is displayed during a time when poor video signal quality is detected. However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of buffering a video signal to replace corrupted frames with good frames are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have modified the teaching of Allport and Margulis in view of Elkind to have means to store good video frames and replace bad video frames with good video frames once the bad video frames are detected, and display the good video frames during the time the bad video frames are detected so as not to lose the quality of the video program being displayed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirubel Aklilu whose telephone number is 571-272-7342. The examiner can normally be reached on 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelly can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER